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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,338

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Reinhard Koegel

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EXAMINER

BEHM, HARRY RAYMOND

ART UNIT

PAPER NUMBER

2838

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,338	Applicant(s) KOEGL ET AL.	
	Examiner Harry Behm	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,22 and 24-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,22 and 24-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/17/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to the amended claims received 8/17/07 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

The indicated allowability of claims 24-29 is withdrawn due to the broadening of Claims 21, 24 and 25. Rejections based on the newly cited reference(s) follow.

Drawings

The drawings were received on 8/17/07. These drawings are accepted.

Claim Objections

Claim 22 objected to because of the following informalities: "the regulating voltage" lacks antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-22 and 25-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Decraemer (US 4,788,591).

With respect to Claim 21, Decraemer discloses a power supply (Fig. 2) comprising:

first (Fig. 2 20) and second (Fig. 2 6) switch-mode power supply units;

both said first and second switch-mode power supply units operate during normal [high power] operation [13,15 switching and synchronized] of said power supply;

said first switch-mode power supply unit is switched off [13 not switching] responsive to a control voltage [oscillator signal 3 blocked from primary switch 13] during standby operation [low power] of said power supply;

a first driver stage (Fig. 2 9,13,20, 210V) in said first switch-mode power supply unit, said first driver stage having a first output (Fig. 2 9) having a higher voltage [switching] during said normal operation than during said standby operation [9 blocked therefore 0 volts]; and,

said first output (Fig. 2 9) is coupled [coupled through synchronization circuit 38,28, 59-62] to an oscillator input (Fig. 2 base 15) of said second switch- mode power supply for reducing the switching frequency [switching frequency of 15 reduced from 30kHz to 7kHz] of said second switch-mode power supply unit during said standby operation.

With respect to Claim 22, Decraemer discloses the power supply as claimed in claim 21, wherein the control voltage (Fig. 2 9) is transmitted via an optocoupler ("the isolation transformer 9 may be replaced by an opto-electronic coupler", column 7 lines 45-50) together with a regulating voltage [9 used for regulating output voltage] for the first switch-mode power supply unit from the secondary side (Fig. 2 40-43) to the primary side (Fig. 2 ACmain side).

With respect to Claim 25, Decraemer discloses the power supply as claimed in claim 21, wherein:

a second driver stage (Fig. 2 49,52,68-69) forms part of said second switch-mode power supply unit; and,

a second output (Fig. 2 base 13) of the first driver stage of the first switch-mode power supply unit, which drives the switching element (Fig. 2 13) of the first switch-mode power supply unit is coupled by a series circuit (Fig. 2 38, 62), having a current limiter (Fig. 2 38) and a rectifier (Fig. 2 62) to an oscillator input (Fig. 2 23) of the second driver stage of the second switch-mode power supply unit for synchronizing [used to synchronize 15 to 13, which is clocked from oscillator 3] the second switch-mode power supply unit.

With respect to Claim 26, Decraemer discloses the power supply as claimed in claim 25, wherein the second output [base 13] of the first driver stage of the first switch-mode power supply unit is connected by the series circuit (Fig. 2 38,62) to a capacitor (Fig. 2 60) of the oscillator of the second switch-mode power supply unit.

With respect to Claim 27, Decraemer discloses the power supply as claimed in claim 25, wherein an output (Fig. 2 50) of the second driver stage of the second switch-mode power supply unit is coupled by a switching stage (Fig. 2 49) to the series circuit (Fig. 2 62,38) for increasing a pulse width ratio [when changes from standby mode to normal mode] of the second output of the first driver stage of the first switch-mode power supply unit.

With respect to Claim 28, Decraemer discloses the power supply as claimed in claim 27, wherein the switching stage has a transistor (Fig. 2 49), which turns off if the voltage of the output of the second driver stage turns off [49 off turns 15 off] the

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switching transistor being connected downstream, and which is at low impedance on the output side if the output voltage of the second driver stage is high [49 on turns 15 on].

With respect to Claim 29, Decraemer discloses the power supply as claimed in claim 27, wherein the switching stage blocks signals [when 15 on, series circuit can not turn 15 off or on] of the series circuit if the output voltage of the second driver stage is high.

With respect to Claim 30, Decraemer discloses the power supply as claimed in claim 21, wherein the first and second switch-mode power supply units in each case have a transformer having a primary winding (Fig. 2 2,6) and at least one secondary winding (Fig. 2 (Fig.,43), a switching element (Fig. 2 13,15) coupled to one of the primary windings, and a driver stage, and in that both switch-mode power supply units operate according to the flyback [flyback diode 16] converter principle.

With respect to Claim 31, Decraemer discloses the power supply as claimed in claim 21, wherein the control voltage (Fig. 2 9) is coupled to a control input [base 13] of the first switch- mode power supply unit and an oscillator input [coupled to 15 through synchronization circuit and further coupled to oscillator 3 through 6] of the second switch-mode power supply unit.

Claims 21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Majid (US 5,852,550).

With respect to Claim 21, Majid discloses a power supply (Fig. 2) comprising:
first (Fig. 2 TR1') and second (Fig. 2 TR2) switch-mode power supply units;
both said first and second switch-mode power supply units operate during normal [high power] operation of said power supply;

said first switch-mode power supply unit is switched off [TR11 not switching] responsive to a control voltage (Fig. 2 OOB) during standby operation [low power] of said power supply;

a first driver stage (Fig. 2 TR12 to gate Tr11) in said first switch-mode power supply unit, said first driver stage having a first output (Fig. 3 DRIVER) having a higher voltage [switching] during said normal operation than during said standby operation [not switching]; and,

said first output (Fig. 3 DRIVER) is coupled [coupled through Vaux through opto to OOD] to an oscillator input (Fig. 2 OOD) of said second switch-mode power supply for reducing the switching frequency [enters burst mode during standby] of said second switch-mode power supply unit during said standby operation.

With respect to Claim 24, Majid discloses the power supply as claimed in claim 21, wherein the first driver stage is embodied in an integrated circuit (Fig. 2 IC1) and the first output of the first driver stage is the output of an error amplifier (Fig. 3 32) in said integrated circuit and

said first output is connected [R14 connected to C16 through ground] via a resistor (Fig. 2 R14) to a capacitor (Fig. 2 C16) of the oscillator of the second switch-mode power supply unit.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamamoto (US 6,408,148) discloses turning off the first power supply and lowering the switching frequency of the second power supply in standby mode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry Behm whose telephone number is 571-272-8929. The examiner can normally be reached on Business EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



KARL EASTHOM
SUPERVISORY PATENT EXAMINER